

**Bi-Weekly Summary Report**  
**Temporary Discharge of Water to the Underground Mine and Discharge of Sludge and Off-Spec Water**  
**Chevron Mining Inc., Questa Mine, Questa, New Mexico**  
**Report Period: January 4, 2016 through January 17, 2017**  
**Report Date: January 20, 2017**

**Water Collection System**

**Volume Discharged to the Underground Mine (gallons):**

Spring 13, Spring 39, GWW-1, GWW-2, and GWW-3 combined flows: 0  
(Includes water used for the commissioning of the temporary water treatment facility)

**Water Quality Sample Results:**

Quarterly samples were not collected during the referenced period

**Pilot Surface-Based Mine Dewatering System:**

A quarterly sample was not collected during the referenced period.

**Mine Water Levels and Water Quality from Shaft #1 Monitoring Well:**

Water elevation = 7,190.45 feet on 01/18/2017

A quarterly sample was collected from Shaft #1-MMW on 12/07/2016, the analytical results are attached.

**Mine Water Elevation-Capacity:**

See attached elevation-capacity graph

**Moly Adit Water Quality and Flow:**

A quarterly sample was collected on 12/07/2016, the analytical results are attached.

A quarterly flow measurement was not collected during the referenced period

**Bedrock Monitoring Wells Water Quality and Water Levels:**

Quarterly sample and water level from MMW-8A was collected on 12/02

Quarterly sample and water level from MMW-19B was collected on 12/02

Quarterly samples and water levels from MMW-36C and MMW-44B were collected on 12/05

December analytical results for MMW-8A, MMW-19B, MMW-36C, and MMW-44B are attached

**Alluvial Seeps/Springs Water Quality and Flow:**

Quarterly Samples were collected from Spring 13 and Spring 39 on 12/12/2017, the analytical results are pending

**Temporary WTP:**

Work on the Temporary Water Treatment Plant was halted in November 2016 due to a building collapse, alternatives are currently being evaluated

Volume of treated water discharged to Outfall 001 (gallons):

No treated water discharged

Volume of off-spec water routed to upset cell (gallons):

No water routed to upset cell

Daily pH at designated 001 Outfall:

No daily pH recorded at Outfall 001

Monthly water quality sample results (designated 001 Outfall):

No sample collected at Outfall 001

Volume of sludge disposed in Interim Repository (cubic yards):

No sludge disposed during the reporting period.

**Permanent WTP:**

This system is currently under construction. No measurements or samples collected from this location.

Volume of shake down water discharged to the underground mine (gallons):

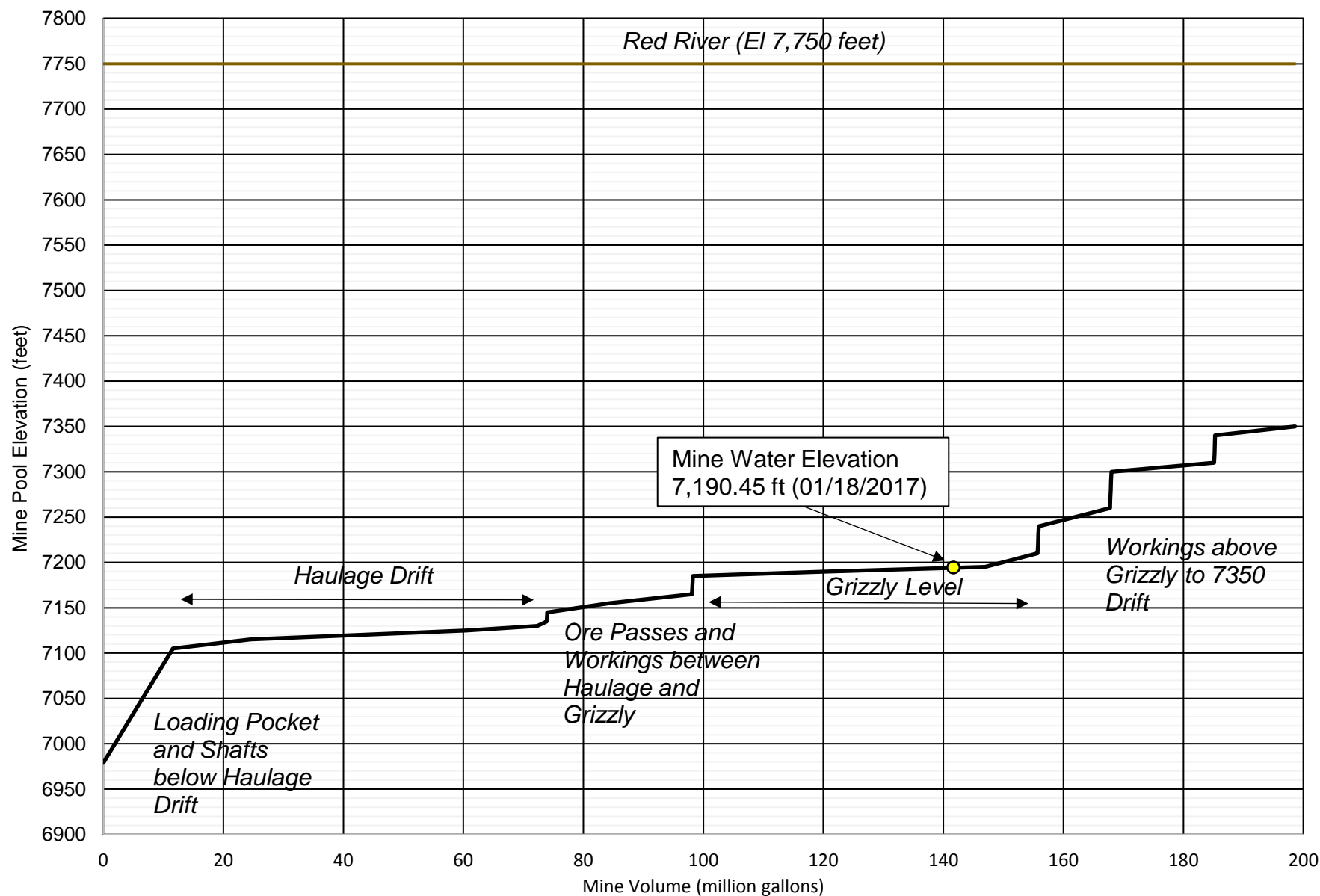
Volume of treated water discharged to Outfall 001 (gallons):

Water treatment quality parameters (pH, temp., spec. cond.):

**Notes:**

Reporting requirements based on NMED September 12, 2016 approval for temporary discharge of impacted water to the underground mine and NMED September 26, 2016 approval for temporary discharge of sludge and off-spec water

## Underground Mine Workings - Cumulative Volume by Elevation



# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1612522

Date Reported: 1/12/2017

CLIENT: Chevron EMC Mining Inc- Questa Mine

Client Sample ID: Shaft 1-MMW-T01N-12072016

Project: DP 1055

Collection Date: 12/7/2016 1:11:00 PM

Lab ID: 1612522-005

Matrix: GROUNDWA

Received Date: 12/9/2016 8:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Fluoride	3.0	0.050	0.10		mg/L	1	12/23/2016 5:07:57 PM
Chloride	65	1.0	10		mg/L	20	12/23/2016 5:20:21 PM
Sulfate	1200	7.1	25		mg/L	50	12/28/2016 4:48:58 AM
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	12/23/2016 7:12:02 PM
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>JLF</b>
Mercury	ND	0.000053	0.00020		mg/L	1	12/21/2016 5:59:40 PM
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	14.32	1.485	20.00	J	mg/L CaC	1	12/14/2016 1:24:30 PM
Carbonate (As CaCO3)	3.600	2.000	2.000		mg/L CaC	1	12/14/2016 1:24:30 PM
Total Alkalinity (as CaCO3)	17.92	1.485	20.00	J	mg/L CaC	1	12/14/2016 1:24:30 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	1800	52.5	100	*D	mg/L	1	12/15/2016 5:52:00 PM
<b>EPA METHOD 180.1: TURBIDITY</b>							Analyst: <b>SRM</b>
Turbidity	31	0.50	0.50	*H	NTU	1	12/9/2016 3:24:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Chevron EMC Mining Inc- Questa Mine**Client Sample ID:** Shaft 1-MMW-D01N-12072016**Project:** DP 1055**Collection Date:** 12/7/2016 1:11:00 PM**Lab ID:** 1612522-006**Matrix:** GROUNDWA**Received Date:** 12/9/2016 8:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>MED</b>
Aluminum	ND	0.0038	0.020		mg/L	1	12/30/2016 2:45:17 PM
Barium	0.040	0.0013	0.0020		mg/L	1	12/30/2016 2:45:17 PM
Beryllium	ND	0.00031	0.0020		mg/L	1	12/30/2016 2:45:17 PM
Cadmium	ND	0.00075	0.0020		mg/L	1	12/30/2016 2:45:17 PM
Calcium	220	5.0	10		mg/L	10	12/30/2016 2:47:13 PM
Chromium	ND	0.0018	0.0060		mg/L	1	12/30/2016 2:45:17 PM
Cobalt	0.0019	0.00074	0.0060	J	mg/L	1	12/30/2016 2:45:17 PM
Copper	0.011	0.0040	0.0060		mg/L	1	12/30/2016 2:45:17 PM
Iron	0.039	0.020	0.020		mg/L	1	12/30/2016 2:45:17 PM
Magnesium	26	0.50	1.0		mg/L	1	12/30/2016 2:45:17 PM
Manganese	0.20	0.00032	0.0020	*	mg/L	1	12/30/2016 2:45:17 PM
Molybdenum	0.026	0.0019	0.0080		mg/L	1	12/30/2016 2:45:17 PM
Nickel	0.0074	0.0024	0.010	J	mg/L	1	12/30/2016 2:45:17 PM
Potassium	86	0.50	1.0		mg/L	1	12/30/2016 2:45:17 PM
Silicon	0.071	0.019	0.080	J	mg/L	1	12/30/2016 2:45:17 PM
Silver	ND	0.0028	0.0050		mg/L	1	12/30/2016 2:45:17 PM
Sodium	210	5.0	10		mg/L	10	12/30/2016 2:47:13 PM
Vanadium	0.0018	0.0013	0.050	J	mg/L	1	12/30/2016 2:45:17 PM
Zinc	ND	0.0028	0.010		mg/L	1	12/30/2016 2:45:17 PM

**EPA 200.8: DISSOLVED METALS**Analyst: **JLF**

Arsenic	0.0017	0.00014	0.0010		mg/L	1	12/12/2016 10:29:32 PM
Lead	ND	0.00017	0.00050		mg/L	1	12/12/2016 10:29:32 PM
Selenium	0.0019	0.00021	0.0010		mg/L	1	12/12/2016 10:29:32 PM
Uranium	0.000067	0.000051	0.00050	J	mg/L	1	12/12/2016 10:29:32 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1612522**Date Reported: **1/12/2017****CLIENT:** Chevron EMC Mining Inc- Questa Mine**Client Sample ID:** Moly Adit-T01N-12072016**Project:** DP 1055**Collection Date:** 12/7/2016 2:00:00 PM**Lab ID:** 1612522-007**Matrix:** GROUNDWA**Received Date:** 12/9/2016 8:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Fluoride	2.7	0.25	0.50		mg/L	5	12/23/2016 5:32:45 PM
Chloride	9.0	0.25	2.5		mg/L	5	12/23/2016 5:32:45 PM
Sulfate	990	7.1	25		mg/L	50	12/28/2016 5:01:23 AM
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	12/23/2016 7:24:26 PM
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>JLF</b>
Mercury	ND	0.000053	0.00020		mg/L	1	12/21/2016 6:01:27 PM
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	312.8	1.485	20.00		mg/L CaC	1	12/14/2016 1:32:15 PM
Carbonate (As CaCO3)	ND	2.000	2.000		mg/L CaC	1	12/14/2016 1:32:15 PM
Total Alkalinity (as CaCO3)	312.8	1.485	20.00		mg/L CaC	1	12/14/2016 1:32:15 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	1860	52.5	100	*D	mg/L	1	12/16/2016 10:51:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Chevron EMC Mining Inc- Questa Mine**Client Sample ID:** Moly Adit-D01N-12072016**Project:** DP 1055**Collection Date:** 12/7/2016 2:00:00 PM**Lab ID:** 1612522-008**Matrix:** GROUNDWA**Received Date:** 12/9/2016 8:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>MED</b>
Aluminum	ND	0.0038	0.020		mg/L	1	12/30/2016 2:49:21 PM
Barium	0.022	0.0013	0.0020		mg/L	1	12/30/2016 2:49:21 PM
Beryllium	0.00070	0.00031	0.0020	J	mg/L	1	12/30/2016 2:49:21 PM
Cadmium	ND	0.00075	0.0020		mg/L	1	12/30/2016 2:49:21 PM
Calcium	420	5.0	10		mg/L	10	12/30/2016 2:56:55 PM
Chromium	ND	0.0018	0.0060		mg/L	1	12/30/2016 2:49:21 PM
Cobalt	0.0029	0.00074	0.0060	J	mg/L	1	12/30/2016 2:49:21 PM
Copper	ND	0.0040	0.0060		mg/L	1	12/30/2016 2:49:21 PM
Iron	52	2.0	2.0	*	mg/L	100	1/3/2017 5:26:22 PM
Magnesium	53	0.50	1.0		mg/L	1	12/30/2016 2:49:21 PM
Manganese	2.2	0.0032	0.020	*	mg/L	10	12/30/2016 2:56:55 PM
Molybdenum	0.025	0.0019	0.0080		mg/L	1	12/30/2016 2:49:21 PM
Nickel	ND	0.0024	0.010		mg/L	1	12/30/2016 2:49:21 PM
Potassium	3.6	0.50	1.0		mg/L	1	12/30/2016 2:49:21 PM
Silicon	11	0.19	0.80		mg/L	10	12/30/2016 2:56:55 PM
Silver	ND	0.0028	0.0050		mg/L	1	12/30/2016 2:49:21 PM
Sodium	33	0.50	1.0		mg/L	1	12/30/2016 2:49:21 PM
Vanadium	0.0025	0.0013	0.050	J	mg/L	1	12/30/2016 2:49:21 PM
Zinc	0.017	0.0028	0.010		mg/L	1	12/30/2016 2:49:21 PM

**EPA 200.8: DISSOLVED METALS**Analyst: **JLF**

Arsenic	0.00050	0.00014	0.0010	J	mg/L	1	12/12/2016 10:45:00 PM
Lead	ND	0.00017	0.00050		mg/L	1	12/12/2016 10:45:00 PM
Selenium	0.00092	0.00021	0.0010	J	mg/L	1	12/12/2016 10:45:00 PM
Uranium	0.084	0.00026	0.0025	*	mg/L	5	12/13/2016 6:55:31 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1612512

Date Reported: 1/5/2017

**CLIENT:** Chevron EMC Mining Inc- Questa Mine**Client Sample ID:** MMW-36C-T01N-12052016**Project:** DP 1055**Collection Date:** 12/5/2016 12:45:00 PM**Lab ID:** 1612512-003**Matrix:** GROUNDWA**Received Date:** 12/9/2016 8:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Fluoride	28	1.0	2.0	*	mg/L	20	12/23/2016 6:22:34 PM
Chloride	33	1.0	10		mg/L	20	12/23/2016 6:22:34 PM
Sulfate	4300	14	50		mg/L	100	12/28/2016 3:46:55 AM
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	12/23/2016 9:28:42 PM
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>JLF</b>
Mercury	0.000055	0.000053	0.00020	J	mg/L	1	12/21/2016 5:45:23 PM
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO <sub>3</sub> )	ND	1.485	20.00		mg/L CaC	1	12/12/2016 2:18:44 PM
Carbonate (As CaCO <sub>3</sub> )	ND	2.000	2.000		mg/L CaC	1	12/12/2016 2:18:44 PM
Total Alkalinity (as CaCO <sub>3</sub> )	ND	1.485	20.00		mg/L CaC	1	12/12/2016 2:18:44 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>SRM</b>
Total Dissolved Solids	5970	10.5	20.0	*	mg/L	1	12/12/2016 5:47:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron EMC Mining Inc- Questa Mine

Client Sample ID: MMW-36C-D01N-12052016

Project: DP 1055

Collection Date: 12/5/2016 12:45:00 PM

Lab ID: 1612512-004

Matrix: GROUNDWA

Received Date: 12/9/2016 8:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>MED</b>
Aluminum	110	1.9	10	*	mg/L	500	12/28/2016 11:51:00 AM
Barium	ND	0.0066	0.010		mg/L	5	12/19/2016 5:29:55 PM
Beryllium	0.011	0.0016	0.010	*	mg/L	5	12/19/2016 5:29:55 PM
Cadmium	ND	0.0037	0.010		mg/L	5	12/19/2016 5:29:55 PM
Calcium	440	5.0	10		mg/L	10	12/14/2016 3:27:48 PM
Chromium	ND	0.0088	0.030		mg/L	5	12/19/2016 5:29:55 PM
Cobalt	0.77	0.0037	0.030		mg/L	5	12/19/2016 5:29:55 PM
Copper	ND	0.020	0.030		mg/L	5	12/19/2016 5:29:55 PM
Iron	160	10	10	*	mg/L	500	12/19/2016 5:33:39 PM
Magnesium	470	5.0	10		mg/L	10	12/14/2016 3:27:48 PM
Manganese	71	0.032	0.20	*	mg/L	100	12/19/2016 5:31:41 PM
Molybdenum	0.017	0.0096	0.040	J	mg/L	5	12/19/2016 5:29:55 PM
Nickel	1.4	0.012	0.050	*	mg/L	5	12/19/2016 5:29:55 PM
Potassium	8.4	2.5	5.0		mg/L	5	12/19/2016 5:29:55 PM
Silicon	28	0.19	0.80		mg/L	10	12/14/2016 3:27:48 PM
Silver	ND	0.014	0.025		mg/L	5	12/19/2016 5:29:55 PM
Sodium	63	5.0	10		mg/L	10	12/14/2016 3:27:48 PM
Vanadium	0.057	0.0064	0.25	J	mg/L	5	12/19/2016 5:29:55 PM
Zinc	4.3	0.014	0.050		mg/L	5	12/19/2016 5:29:55 PM

**EPA 200.8: DISSOLVED METALS**Analyst: **JLF**

Arsenic	0.0073	0.00069	0.0050		mg/L	5	12/13/2016 6:29:46 PM
Lead	0.030	0.00084	0.0025	*	mg/L	5	12/13/2016 6:29:46 PM
Selenium	0.0082	0.0011	0.0050		mg/L	5	12/13/2016 6:29:46 PM
Uranium	ND	0.00026	0.0025		mg/L	5	12/13/2016 6:29:46 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit



## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron EMC Mining Inc- Questa Mine

Client Sample ID: MMW-44B-T01N-12052016

Project: DP 1055

Collection Date: 12/5/2016 11:30:00 AM

Lab ID: 1612512-005

Matrix: GROUNDWA

Received Date: 12/9/2016 8:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Fluoride	1.6	0.25	0.50		mg/L	5	12/23/2016 6:59:47 PM
Chloride	27	0.25	2.5		mg/L	5	12/23/2016 6:59:47 PM
Sulfate	1600	7.1	25		mg/L	50	12/28/2016 3:59:19 AM
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	12/23/2016 9:41:07 PM
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>JLF</b>
Mercury	ND	0.000053	0.00020		mg/L	1	12/21/2016 5:43:31 PM
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO <sub>3</sub> )	219.3	1.485	20.00		mg/L CaC	1	12/12/2016 2:31:29 PM
Carbonate (As CaCO <sub>3</sub> )	ND	2.000	2.000		mg/L CaC	1	12/12/2016 2:31:29 PM
Total Alkalinity (as CaCO <sub>3</sub> )	219.3	1.485	20.00		mg/L CaC	1	12/12/2016 2:31:29 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>SRM</b>
Total Dissolved Solids	2600	21.0	40.0	*D	mg/L	1	12/12/2016 5:47:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron EMC Mining Inc- Questa Mine

Client Sample ID: MMW-44B-D01N-12052016

Project: DP 1055

Collection Date: 12/5/2016 11:30:00 AM

Lab ID: 1612512-006

Matrix: GROUNDWA

Received Date: 12/9/2016 8:50:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>MED</b>
Aluminum	ND	0.0038	0.020		mg/L	1	12/14/2016 3:29:28 PM
Barium	0.012	0.0013	0.0020		mg/L	1	12/14/2016 3:29:28 PM
Beryllium	0.0012	0.00031	0.0020	J	mg/L	1	12/14/2016 3:29:28 PM
Cadmium	ND	0.00075	0.0020		mg/L	1	12/14/2016 3:29:28 PM
Calcium	520	5.0	10		mg/L	10	12/14/2016 3:40:53 PM
Chromium	ND	0.0018	0.0060		mg/L	1	12/14/2016 3:29:28 PM
Cobalt	0.0024	0.00074	0.0060	J	mg/L	1	12/14/2016 3:29:28 PM
Copper	ND	0.0040	0.0060		mg/L	1	12/19/2016 5:43:41 PM
Iron	5.7	0.20	0.20	*	mg/L	10	12/14/2016 3:40:53 PM
Magnesium	42	0.50	1.0		mg/L	1	12/14/2016 3:29:28 PM
Manganese	6.0	0.0032	0.020	*	mg/L	10	12/14/2016 3:40:53 PM
Molybdenum	ND	0.0019	0.0080		mg/L	1	12/14/2016 3:29:28 PM
Nickel	ND	0.0024	0.010		mg/L	1	12/19/2016 5:43:41 PM
Potassium	7.3	0.50	1.0		mg/L	1	12/14/2016 3:29:28 PM
Silicon	8.4	0.19	0.80		mg/L	10	12/14/2016 3:40:53 PM
Silver	ND	0.0028	0.0050		mg/L	1	12/14/2016 3:29:28 PM
Sodium	130	5.0	10		mg/L	10	12/14/2016 3:40:53 PM
Vanadium	ND	0.0013	0.050		mg/L	1	12/14/2016 3:29:28 PM
Zinc	ND	0.0028	0.010		mg/L	1	12/19/2016 5:43:41 PM

**EPA 200.8: DISSOLVED METALS**Analyst: **JLF**

Arsenic	0.00088	0.00069	0.0050	J	mg/L	5	12/13/2016 6:34:55 PM
Lead	ND	0.00084	0.0025		mg/L	5	12/13/2016 6:34:55 PM
Selenium	0.0014	0.0011	0.0050	J	mg/L	5	12/13/2016 6:34:55 PM
Uranium	0.00049	0.00026	0.0025	J	mg/L	5	12/13/2016 6:34:55 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron EMC Mining Inc- Questa Mine

Client Sample ID: MMW-8A-T01N-12022016

Project: DP 1055

Collection Date: 12/2/2016 8:54:00 AM

Lab ID: 1612207-001

Matrix: GROUNDWA

Received Date: 12/5/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Fluoride	2.4	1.0	2.0		mg/L	20	12/9/2016 5:16:26 AM
Chloride	6.3	0.051	0.50		mg/L	1	12/9/2016 4:39:13 AM
Sulfate	1400	7.1	25		mg/L	50	12/16/2016 4:35:08 PM
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	12/17/2016 4:34:55 AM
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>pmf</b>
Mercury	ND	0.000054	0.00020		mg/L	1	12/15/2016 3:49:30 PM
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO <sub>3</sub> )	156.9	1.485	20.00		mg/L CaC	1	12/6/2016 7:13:54 PM
Carbonate (As CaCO <sub>3</sub> )	ND	2.000	2.000		mg/L CaC	1	12/6/2016 7:13:54 PM
Total Alkalinity (as CaCO <sub>3</sub> )	156.9	1.485	20.00		mg/L CaC	1	12/6/2016 7:13:54 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	2350	10.5	20.0	*	mg/L	1	12/8/2016 3:20:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron EMC Mining Inc- Questa Mine

Client Sample ID: MMW-8A-D01N-12022016

Project: DP 1055

Collection Date: 12/2/2016 8:54:00 AM

Lab ID: 1612207-002

Matrix: GROUNDWA

Received Date: 12/5/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>MED</b>
Aluminum	ND	0.0038	0.020		mg/L	1	12/14/2016 10:21:01 AM
Barium	0.022	0.0013	0.0020		mg/L	1	12/14/2016 10:21:01 AM
Beryllium	0.00069	0.00031	0.0020	J	mg/L	1	12/14/2016 10:21:01 AM
Cadmium	ND	0.00075	0.0020		mg/L	1	12/14/2016 10:21:01 AM
Calcium	460	5.0	10		mg/L	10	12/14/2016 10:22:53 AM
Chromium	ND	0.0018	0.0060		mg/L	1	12/14/2016 10:21:01 AM
Cobalt	0.0090	0.00074	0.0060		mg/L	1	12/14/2016 10:21:01 AM
Copper	ND	0.0040	0.0060		mg/L	1	12/14/2016 10:21:01 AM
Iron	0.81	0.020	0.020	*	mg/L	1	12/14/2016 10:21:01 AM
Magnesium	88	0.50	1.0		mg/L	1	12/14/2016 11:03:57 AM
Manganese	3.1	0.0032	0.020	*	mg/L	10	12/14/2016 10:22:53 AM
Molybdenum	0.0057	0.0019	0.0080	J	mg/L	1	12/14/2016 10:21:01 AM
Nickel	ND	0.0024	0.010		mg/L	1	12/14/2016 10:21:01 AM
Potassium	4.2	0.50	1.0		mg/L	1	12/14/2016 10:21:01 AM
Silicon	13	0.19	0.80		mg/L	10	12/14/2016 10:22:53 AM
Silver	ND	0.0028	0.0050		mg/L	1	12/14/2016 10:21:01 AM
Sodium	39	0.50	1.0		mg/L	1	12/14/2016 11:03:57 AM
Vanadium	0.0043	0.0013	0.050	J	mg/L	1	12/14/2016 10:21:01 AM
Zinc	0.0039	0.0028	0.010	J	mg/L	1	12/14/2016 10:21:01 AM

**EPA 200.8: DISSOLVED METALS**Analyst: **JLF**

Arsenic	0.0012	0.00014	0.0010		mg/L	1	12/6/2016 8:21:32 PM
Lead	ND	0.00084	0.0025		mg/L	5	12/12/2016 9:07:16 PM
Selenium	0.0017	0.0011	0.0050	J	mg/L	5	12/12/2016 9:07:16 PM
Uranium	0.0035	0.00026	0.0025		mg/L	5	12/12/2016 9:07:16 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron EMC Mining Inc- Questa Mine

Client Sample ID: MMW-19B-T01N-12022016

Project: DP 1055

Collection Date: 12/2/2016 9:51:00 AM

Lab ID: 1612207-003

Matrix: GROUNDWA

Received Date: 12/5/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Fluoride	2.2	1.0	2.0		mg/L	20	12/9/2016 5:41:16 AM
Chloride	5.7	0.051	0.50		mg/L	1	12/9/2016 5:28:51 AM
Sulfate	1700	7.1	25		mg/L	50	12/16/2016 4:47:32 PM
Nitrate+Nitrite as N	ND	0.46	1.0		mg/L	5	12/17/2016 4:47:19 AM
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>pmf</b>
Mercury	ND	0.000054	0.00020		mg/L	1	12/15/2016 3:51:30 PM
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO <sub>3</sub> )	223.6	1.485	20.00		mg/L CaC	1	12/6/2016 7:48:25 PM
Carbonate (As CaCO <sub>3</sub> )	ND	2.000	2.000		mg/L CaC	1	12/6/2016 7:48:25 PM
Total Alkalinity (as CaCO <sub>3</sub> )	223.6	1.485	20.00		mg/L CaC	1	12/6/2016 7:48:25 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	2600	21.0	40.0	*D	mg/L	1	12/8/2016 3:20:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Chevron EMC Mining Inc- Questa Mine

Client Sample ID: MMW-19B-D01N-12022016

Project: DP 1055

Collection Date: 12/2/2016 9:51:00 AM

Lab ID: 1612207-004

Matrix: GROUNDWA

Received Date: 12/5/2016 10:00:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>MED</b>
Aluminum	ND	0.0038	0.020		mg/L	1	12/14/2016 4:21:45 PM
Barium	0.010	0.0013	0.0020		mg/L	1	12/14/2016 10:33:03 AM
Beryllium	0.0044	0.00031	0.0020	*	mg/L	1	12/14/2016 10:33:03 AM
Cadmium	ND	0.00075	0.0020		mg/L	1	12/14/2016 10:33:03 AM
Calcium	550	5.0	10		mg/L	10	12/14/2016 10:34:44 AM
Chromium	ND	0.0018	0.0060		mg/L	1	12/14/2016 10:33:03 AM
Cobalt	0.015	0.00074	0.0060		mg/L	1	12/14/2016 10:33:03 AM
Copper	ND	0.0040	0.0060		mg/L	1	12/14/2016 10:33:03 AM
Iron	4.0	0.20	0.20	*	mg/L	10	12/14/2016 10:34:44 AM
Magnesium	96	0.50	1.0		mg/L	1	12/14/2016 10:33:03 AM
Manganese	7.4	0.0032	0.020	*	mg/L	10	12/14/2016 10:34:44 AM
Molybdenum	0.0048	0.0019	0.0080	J	mg/L	1	12/14/2016 10:33:03 AM
Nickel	0.030	0.0024	0.010		mg/L	1	12/14/2016 10:33:03 AM
Potassium	3.9	0.50	1.0		mg/L	1	12/14/2016 10:33:03 AM
Silicon	13	0.19	0.80		mg/L	10	12/14/2016 10:34:44 AM
Silver	ND	0.0028	0.0050		mg/L	1	12/14/2016 10:33:03 AM
Sodium	49	0.50	1.0		mg/L	1	12/14/2016 10:33:03 AM
Vanadium	0.0056	0.0013	0.050	J	mg/L	1	12/14/2016 10:33:03 AM
Zinc	0.36	0.0028	0.010		mg/L	1	12/14/2016 10:33:03 AM

**EPA 200.8: DISSOLVED METALS**Analyst: **JLF**

Arsenic	0.0015	0.00069	0.0050	J	mg/L	5	12/12/2016 9:12:24 PM
Lead	0.0079	0.00084	0.0025		mg/L	5	12/12/2016 9:12:24 PM
Selenium	0.0012	0.0011	0.0050	J	mg/L	5	12/12/2016 9:12:24 PM
Uranium	0.043	0.00026	0.0025	*	mg/L	5	12/12/2016 9:12:24 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit